

DERWENT-ACC-NO: 1993-320106

DERWENT-WEEK: 200506

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TITLE: Purifying polyether poly:ol(s) made with  
double metal cyanide catalysts - by contacting with minor  
amt. of aliphatic alcohol and EDTA chelating agent and  
filtering off insol. complex formed

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NV[FARB],  
ARCO CHEM TECHNOLOGY INC[ATLF]

PRIORITY-DATA: 1992US-0948275 (September 22, 1992)

PATENT-FAMILY:

PUB-NO	MAIN-IPC	PUB-DATE	LANGUAGE
PAGES			
CA 2106184	C	January 11, 2005	E
000	C07C 043/11		
US 5248833	A	September 28, 1993	N/A
005	C07C 041/36		
EP <u>589635</u>	A1	March 30, 1994	E
011	C08G 065/30		
AU 9347530	A	March 31, 1994	N/A
000	C08G 065/46		
BR 9303854	A	May 10, 1994	N/A
000	C08G 065/30		
CA 2106184	A	March 23, 1994	N/A
000	C07C 043/11		
JP 06200013	A	July 19, 1994	N/A
008	C08G 065/30		
TW 253892	A	August 11, 1995	N/A
000	C08G 065/46		
AU 663973	B	October 26, 1995	N/A
000	C08G 065/30		
EP <u>589635</u>	B1	November 12, 1997	E
009	C08G 065/30		
DE 69315161	E	December 18, 1997	N/A
000	C08G 065/30		
ES 2109442	T3	January 16, 1998	N/A
000	C08G 065/30		

MX 184037 B	February 18, 1997	N/A
000 C07C 041/036		
KR 285866 B	April 16, 2001	N/A
000 C08G 018/22		
JP 3397392 B2	April 14, 2003	N/A
007 C08G 065/30		

DESIGNATED-STATES: BE DE ES FR GB IT NL SE BE DE ES FR GB IT NL SE

CITED-DOCUMENTS: EP 283298; EP 370705 ; EP 383333 ; EP 385619 ; EP 406440 ; GB 2085457 ; US 4355188 ; US 4721818 ; US 5214128

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
CA 2106184C	N/A	1993CA-2106184
September 14, 1993		
US 5248833A	N/A	1992US-0948275
September 22, 1992		
EP 589635A1	N/A	1993EP-0307364
September 17, 1993		
AU 9347530A	N/A.	1993AU-0047530
September 22, 1993		
BR 930385-A	N/A	1993BR-0003854
September 21, 1993		
CA 2106184A	N/A	1993CA-2106184
September 14, 1993		
JP 06200013A	N/A	1993JP-0257469
September 22, 1993		
TW 253892A	N/A	1993TW-0107809
September 22, 1993		
AU 663973B	N/A	1993AU-0047530
September 22, 1993		
AU 663973B	Previous Publ.	AU 9347530
N/A		
EP 589635B1	N/A	1993EP-0307364
September 17, 1993		
DE 69315161E	N/A	1993DE-0615161
September 17, 1993		
DE 69315161E	N/A	1993EP-0307364
September 17, 1993		
DE 69315161E	Based on	EP <u>589635</u>
N/A		
ES 2109442T3	N/A	1993EP-0307364
September 17, 1993		
ES 2109442T3	Based on	EP <u>589635</u>
N/A		
MX 184037B	N/A	1993MX-0005758

September 21, 1993		
KR 28586C	N/A	1993KR-0019258
September 22, 1993		
KR 285866B	Previous Publ.	KR 94007078
N/A		
JP 3397392B2	N/A	1993JP-0257469
September 22, 1993		
JP 3397392B2	Previous Publ.	JP 6200013
N/A		

INT-CL (IPC): C07C041/036, C07C041/36, C07C041/58, C07C043/11, C08G018/22, C08G065/10, C08G065/30, C08G065/46

ABSTRACTED-PUB-NO: EP 589635B

BASIC-ABSTRACT:

A polyether polyol (I) contg. residues of double metal cyanide catalyst (II) is combined with a 1-6C aliphatic alcohol and a chelating agent (III), resulting in formation of an insoluble complex of the catalyst residues which is removed from (I) by filtration. (III) is ethylenediaminetetraacetic acid (EDTA), or a salt thereof contg. one or more cations selected from Li, Na, K, Mg, Ca, NH<sub>4</sub> and Fe; and wt. ratio (I):alcohol = 1-100:1 (pref. 2-10:1).

USE/ADVANTAGE - The use of (II) in the prepn. of (I), partic. those having high functionality, is well known. The invention provides a simple, reliable, commercially practical and economical process for removing the catalyst residues from the polyol, which is necessary if long-term stability and consistent performance in urethane formulations is to be achieved. By using an amt. of alcohol in the specified range, the process also removes any cations introduced with (III) and eliminates the need for subsequent ion-exchange treatment

ABSTRACTED-PUB-NO: US 5248833A

EQUIVALENT-ABSTRACTS:

A process for purifying a polyether prepared using a double metal cyanide catalyst, said process comprising (a) combining a polyether polyol that contains double metal cyanide catalyst residues with a 1-6C aliphatic alcohol and a chelating agent which forms an insoluble complex with the catalyst residues; and (b) filtering the resulting mixture to remove the insoluble complex from the polyol: wherein the relative weight ratio of the polyether polyol to the 1-6C aliphatic alcohol is within the range of about 1:1 to 100:1.

CHOSEN-DRAWING: Dwg.0/0 Dwg.0/0

TITLE-TERMS: PURIFICATION POLYETHER POLY OL MADE DOUBLE METAL CYANIDE CATALYST

CONTACT MINOR AMOUNT ALIPHATIC ALCOHOL EDTA CHELATE AGENT FILTER  
INSOLUBLE COMPLEX FORMING

DERWENT-CLASS: A25

CPI-CODES A05-G03; A05-H01; A10-G01A;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0195U; 0270U

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

017 ; R00351 G1558 D01 D23 D22 D31 D42 D50 D82 F47 ; R00370 G1558  
D01 D11 D10 D23 D22 D31 D42 D50 D83 F47 ; P1036 P0964 F34 ; H0000  
; H0011\*R ; S9999 S1627 S1605 ; P0055

Polymer Index [1.2]

017 ; ND07 ; ND08 ; N9999 N6655\*R ; N9999 N6804\*R N6655 ; N9999  
N6666 N6655 ; B9999 B5094 B4977 B4740 ; B9999 B4535 ; B9999 B3532  
B3372

Polymer Index [1.3]

017 ; D61\*R D68 D86 F12 Co 8B Tr Zn 2B ; C999 C033 C000 ; C999  
C259

; C999 C306

Polymer Index [1.4]

017 ; D01 D11 D10 D50 D83 F27 F26 ; R00270 D01 D11 D10 D50 D81  
F27  
F26 ; R00245 D01 D11 D10 D50 D82 F27 F26 ; R00302 D01 D11 D10 D50  
D83 F27 F26 ; A999 A475 ; A999 A771

Polymer Index [1.5]

017 ; R00195 D01 D11 D10 D50 D60 D90 F09 F07 F38 F35 ; A999 A124

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serial's: 0013 0034 0037 0106 0109 0112 0115 0118 0121 0124 0127  
0130 0184  
0187 0190 0224 0228 0229 1279 1588 1589 1594 1602 1603 1608 2044 2051  
2064 2065  
2317 2318 2379 2383 2394 2507 2572 2574 2585 2676  
Multipunch Codes: 017 028 017 03& 03- 034 07- 075 08- 09& 09- 10& 10-  
147 15&  
17& 17- 18& 18- 19& 198 200 262 263 273 278 316 328 332 336 398 402  
406 417 44&  
528 532 536 575 583 589 688 689 693 720

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1993-142473